Interdecadal changes in 1870-2003 Northern Hemisphere winter sea level pressure variability and relationship with temperature

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Hypothesis

 Low frequency changes in the interannual correlation between the winter NAO and northern hemisphere winter temperature are caused by low frequency changes in the magnitude of the variance of SLP.

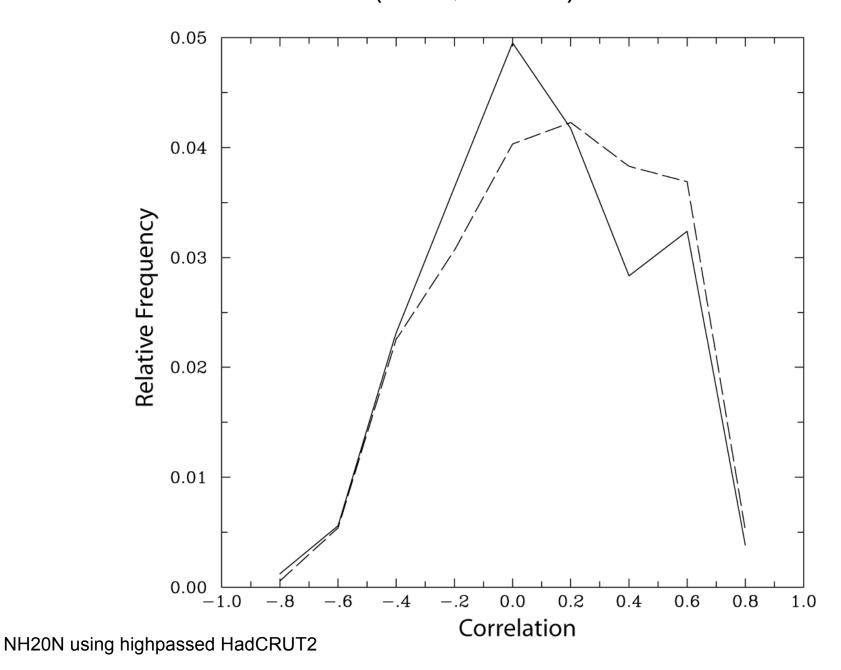
NAO – NH20N(station) Correlation



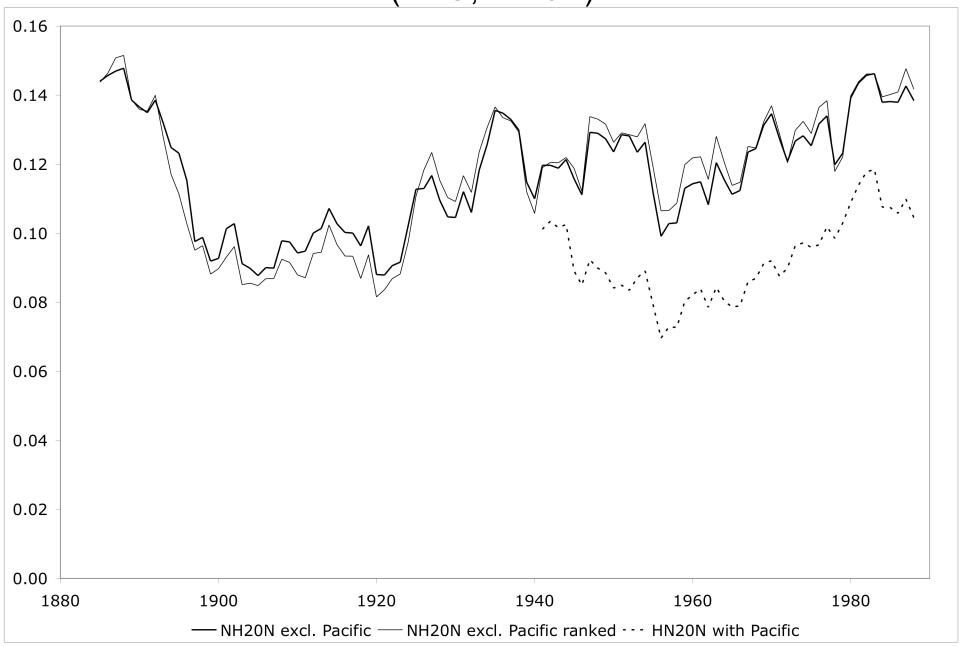
NAO - NH20N(HadCRUT2v) Correlation



Correlation PDF when r(NAO,NH20N) is above/below median

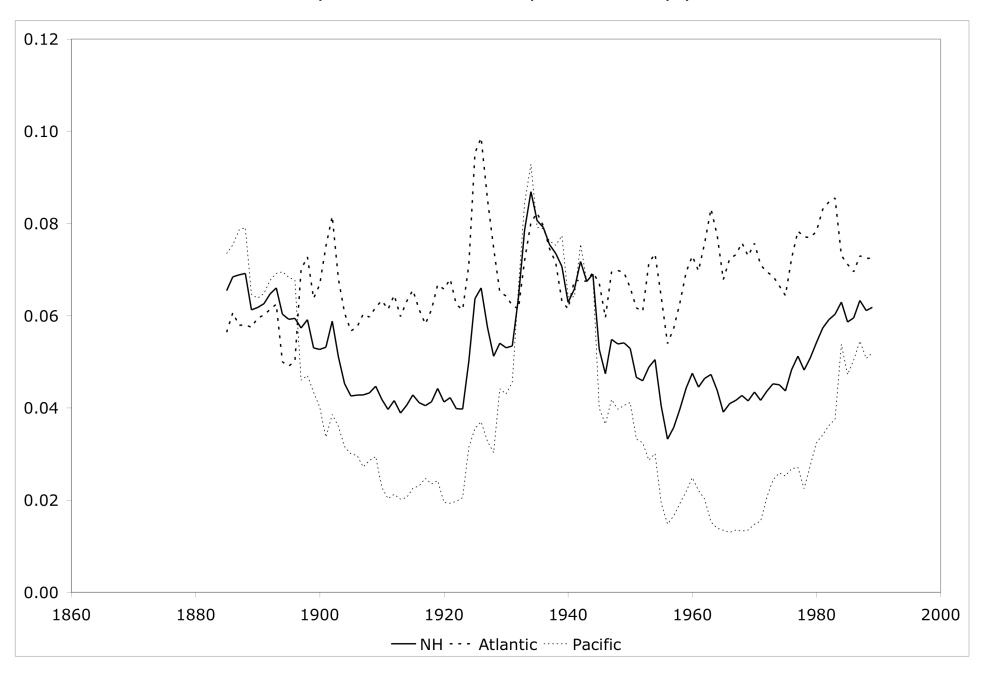


 $r^2(NAO,NH20N)$

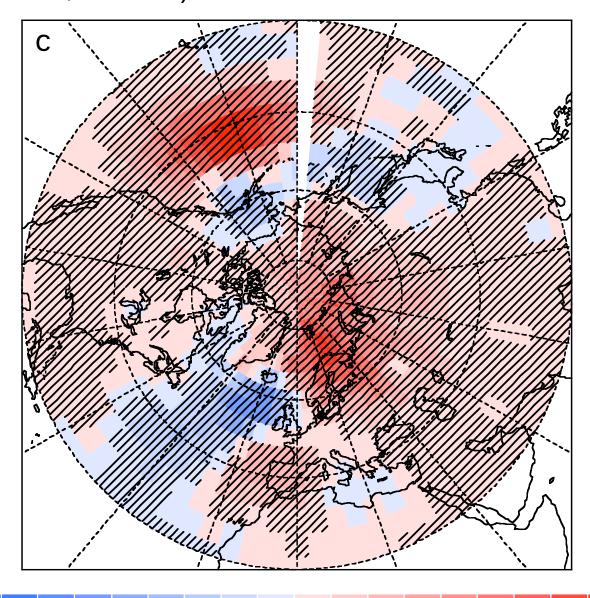


NH20N using highpassed HadCRUT2

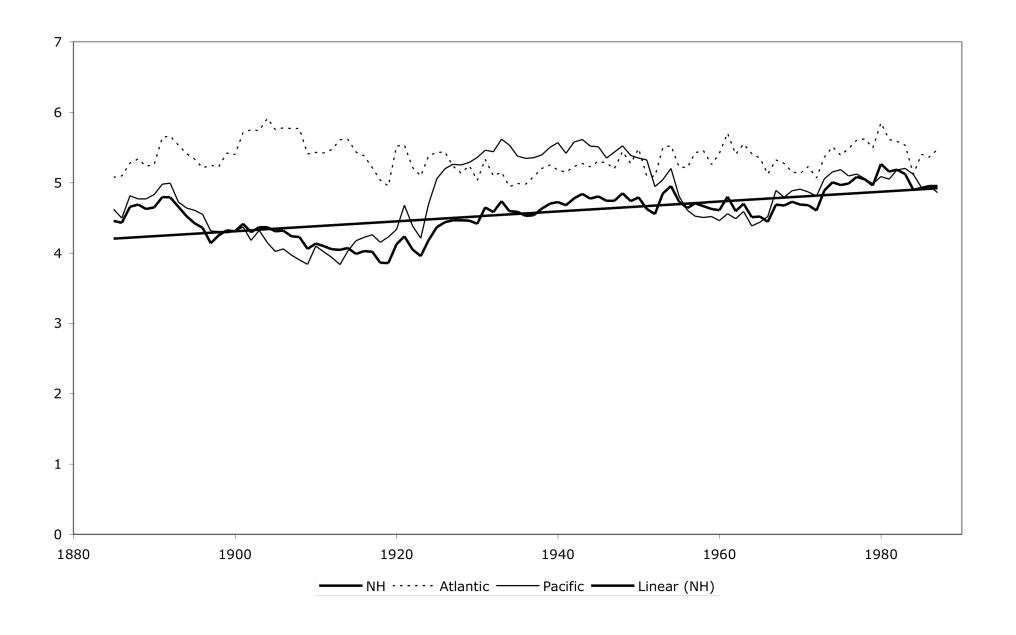
r²(NAO, NH20N(HadISST))



HadSLP2 variance difference between when r²(NAO,NH20N) is above and below its median



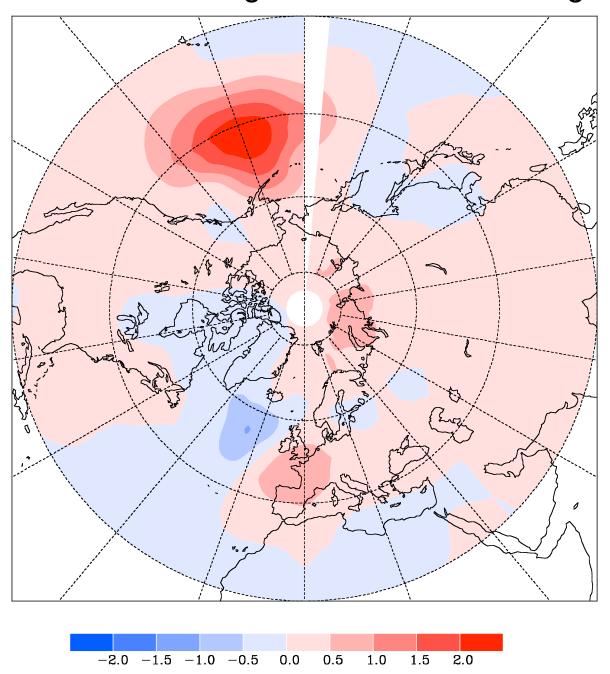
HadSLP2 Variance North of 20°N



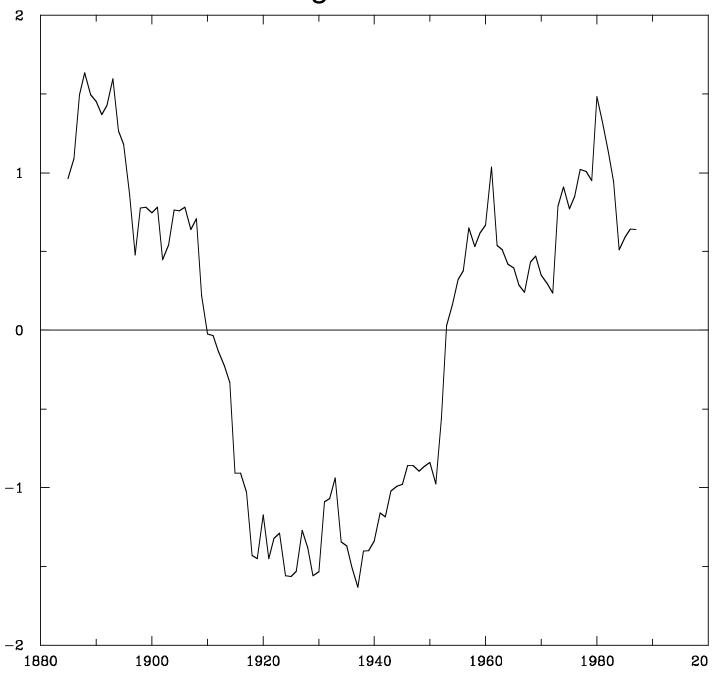
HadSLP2 running variance PC2 Scores



HadSLP2 running variance PC2 Loadings



HadSLP2 running variance PC1 Scores



HadSLP2 running variance PC1 Loadings

